

# *Civil Engineering Aids Guide*



## In This Guide

- **Structural Shapes**
- **Structural Tubing**

Civil Engineers use detailed drawings for communication. These working drawings can be in planning, design, construction, operation and maintenance of construction, environmental and transportation systems. The Design menu in the Mechanical Engineering workspace contains the commands Structural Shapes and Structural Tubing as an aid to creating civil engineering drawings. Any of the commands can be added to any workspace using the Workspace Editor, refer to page 19-1, Customizing VectorWorks, in the MiniCAD VectorWorks User's Manual.

To Use any command in this guide:

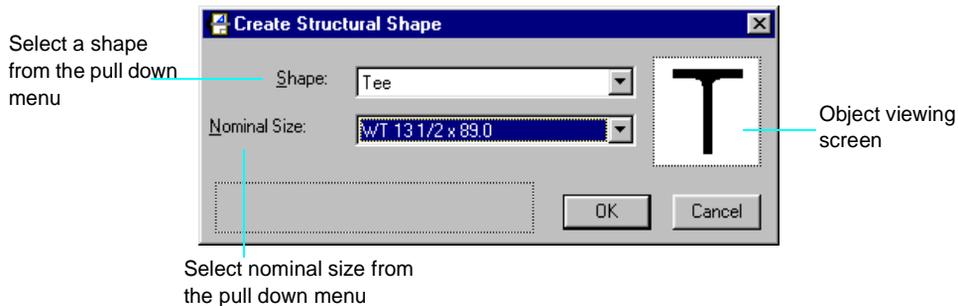
1. Select the option from the **Design Menu** in the **Mechanical Eng Workspace**.  
A dialog for the selected tool appears.
2. Enter the desired criteria.
3. Click **OK**.

For each tool, the path is listed. For example, Design>Structural shapes will access the Structural Tubing command.

## STRUCTURAL SHAPES

### Design>Structural Shapes

This command lets you easily create profiles of structural beams (Wide Flange, Channel, I Beam, Angle and Tee) in a variety of nominal inch sizes per the specifications of the American Institute of Steel Construction.



**Note:** VectorWorks automatically places the shape at the center of the current view in your drawing. You can then move it like any other VectorWorks object.

## STRUCTURAL TUBING

### Design>Structural Tubing

This command lets you easily create profiles of structural tubing in the following shapes; Rectangular, Square, Round, and Polygonal. The dimensions, outside diameter, number of sides, wall thickness and the

inside fillet radius are input by the user. Inches or mm can specified regardless of the units setting of the active drawing.

